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Sundown Audio SA-12 V.2 D4

Sundown Audio SA-12 V.2 D4 12-inch Subwoofer Instruction Manual

Model: SA-12 V.2 D4 | Brand: Sundown Audio

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Sundown Audio SA-12 V.2 D4 12-inch subwoofer. Please read this manual thoroughly before installation and use to ensure optimal performance and safety.

IMPORTANT SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in serious injury or property damage.

- Always disconnect the vehicle's battery before performing any electrical work.
- Ensure all wiring is properly insulated and secured to prevent short circuits and damage.
- Do not expose the subwoofer to excessive moisture or extreme temperatures.
- Use appropriate personal protective equipment (PPE) during installation, such as eye protection and gloves.
- Consult a professional installer if you are unsure about any aspect of the installation process.
- Avoid prolonged listening at high volume levels to prevent hearing damage.

PACKAGE CONTENTS

Verify that all items are present in the package:

- Sundown Audio SA-12 V.2 D4 12-inch Subwoofer
- Spring Loaded Terminals (pre-installed or included)
- Instruction Manual (this document)

TECHNICAL SPECIFICATIONS

Feature	Specification
Model Name	SA-12 V.2 D4
Subwoofer Diameter	12 Inches
RMS Power	1000 Watts
Impedance	3.91 Ohms (Dual 4 Ohm)
Mounting Depth	7.36 inches
Cutout Diameter	11.08 inches
Magnet Diameter	7.80 inches
Frequency Response (Fs)	38.87 Hz
Material	Paper, Foam, Aluminum, Magnets
Voice Coil Wire	High Temperature Copper
Frame	High Strength Cast Aluminum
Recommended Uses	Car audio systems

SETUP AND INSTALLATION

1. Enclosure Recommendations

Proper enclosure design is critical for optimal subwoofer performance. The SA-12 V.2 D4 is optimized for various enclosure types:

- **Sealed Enclosure:** 0.75 ft³
- **Ported Enclosure:** 1.75 ft³ tuned @ 35Hz (F3 of ~29Hz)

Ensure the enclosure provides adequate internal volume and structural integrity to handle the subwoofer's power and excursion.

2. Mounting the Subwoofer

The subwoofer requires a cutout diameter of 11.08 inches and a mounting depth of 7.36 inches. Ensure the mounting surface is rigid and free from obstructions. Use appropriate fasteners to secure the subwoofer firmly to the enclosure.



Image: Front view of the Sundown Audio SA-12 V.2 D4 subwoofer, showing the cone and surround.

3. Wiring Connections

The SA-12 V.2 D4 features dual 4 Ohm voice coils. Proper wiring is essential for matching the subwoofer's impedance to your amplifier's output. Refer to your amplifier's manual for recommended wiring configurations for dual voice coil subwoofers.

Common wiring configurations for dual 4 Ohm voice coils include:

- **Parallel Wiring:** Connect both voice coils in parallel for a 2 Ohm load. This is often used for amplifiers stable at 2 Ohms.
- **Series Wiring:** Connect both voice coils in series for an 8 Ohm load. This is suitable for amplifiers requiring a higher impedance.

Ensure all connections are secure and free from corrosion. Use high-quality speaker wire of appropriate gauge for your power levels.



Image: Rear view of the Sundown Audio SA-12 V.2 D4 subwoofer, highlighting the spring-loaded terminals for wiring connections.

OPERATING INSTRUCTIONS

1. Initial Power-Up and Break-in

After installation, perform an initial power-up at low volume to confirm all connections are correct and the subwoofer is functioning as expected. A break-in period is recommended for new subwoofers to allow the suspension components to loosen up and achieve optimal performance. During the first 20-30 hours of use, operate the subwoofer at moderate volume levels, avoiding extreme bass or prolonged high-volume playback.

2. Setting Amplifier Gain

Properly setting the amplifier gain is crucial to prevent damage to the subwoofer and amplifier. The gain control is not a volume knob; it matches the output voltage of your head unit to the input sensitivity of your amplifier. To set the gain:

1. Turn the amplifier gain all the way down (minimum).
2. Set your head unit volume to about 75% of its maximum.
3. Play a test tone (e.g., 50Hz at 0dB) through your system.
4. Slowly increase the amplifier gain until you hear distortion, then back it off slightly until the sound is clear.
5. Avoid setting the gain too high, as this can lead to clipping and damage the subwoofer.

MAINTENANCE

Regular maintenance helps prolong the life and performance of your subwoofer:

- **Cleaning:** Use a soft, dry cloth to wipe down the subwoofer cone and surround. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Periodically check all wiring connections for tightness and signs of corrosion. Inspect the subwoofer's surround and cone for any tears or damage.
- **Environment:** Ensure the subwoofer is installed in a well-ventilated area to prevent overheating.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No Sound	No power to amplifier; loose wiring; incorrect input signal.	Check power connections, ground, and remote turn-on. Verify RCA cables are connected and functional. Ensure amplifier is on.
Distorted Sound	Amplifier gain set too high; damaged subwoofer; incorrect crossover settings.	Reduce amplifier gain. Check subwoofer for physical damage. Adjust low-pass filter (LPF) on amplifier or head unit.
Weak Bass Output	Incorrect wiring impedance; insufficient power; improper enclosure.	Verify wiring matches amplifier's stable impedance. Ensure amplifier provides sufficient RMS power. Check enclosure volume and tuning.
Subwoofer Overheating	Overpowering; insufficient ventilation; prolonged high-volume use.	Reduce power or volume. Ensure amplifier and subwoofer have adequate airflow. Allow components to cool down.

WARRANTY AND SUPPORT

The Sundown Audio SA-12 V.2 D4 subwoofer comes with a limited warranty. Please refer to the official Sundown Audio website or your purchase documentation for specific warranty terms and conditions. For technical support, service, or warranty claims, please contact Sundown Audio customer service or your authorized dealer.

Contact Information:

- **Brand:** Sundown Audio
- **Website:** [Sundown Audio Store on Amazon](#) (for product information)
- *For direct manufacturer support, please visit the official Sundown Audio website or contact their customer service.*